


OHIO CEMENT COMPANY



1130 Majestic Building
DETROIT, MICH.



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O h i o

C e m e n t

C o m p a n y

Ohio Cement Company

Incorporated under the Laws of
West Virginia.

CAPITALIZATION

\$1,500,000 7% cumulative preferred stock,
retirable at the option of the
Company, after five years, at
\$110 a share and accrued divi-
dends.

\$3,000,000 common stock.

Par value of shares, \$100.

Ohio Cement Company

OFFICERS

WILLIAM L. HOLMES,	-	-	-	President
AUGUSTUS C. STELLWAGEN,	-	-	-	Vice-President
HARRY P. HARDING,	-	-	-	Secretary and Treasurer

Directors

WILLIAM L. HOLMES,	-	-	-	Detroit, Mich. Formerly President Iola Portland Cement Company.
AUGUSTUS C. STELLWAGEN,	-	-	-	Detroit, Mich. Attorney.
JOSEPH L. HUDSON,	-	-	-	Detroit, Mich. Merchant and Capitalist.
M. B. FARRIN,	-	-	-	Cincinnati, Ohio. President M. B. Farrin Lumber Company.
PROF. JOHN R. ALLEN,	-	-	-	Ann Arbor, Mich. Engineering Department of University of Michigan.
JOHN A. LOCKARD,	-	-	-	Wellston, Ohio Merchant.
HARRY P. HARDING,	-	-	-	Wellston, Ohio
J. W. MORRISON, M. D.,	-	-	-	Detroit, Mich.

Engineers

BRUSH, ALLEN & ANDERSON,	-	-	-	Detroit, Mich.
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Depositories

NATIONAL BANK OF COMMERCE,	-	-	-	Detroit, Mich.
DIME SAVINGS BANK,	-	-	-	Detroit, Mich.
FIRST NATIONAL BANK,	-	-	-	Wellston, Ohio

OHIO CEMENT COMPANY has succeeded in securing an option, until May 1, 1908, to purchase, for the sum of one hundred thousand dollars, the entire Home Tract of Hamden Furnace land, consisting of 2,500 acres, and adjoining the property now controlled by the Company.

January 6, 1908.

Financial

OHIO CEMENT COMPANY is chartered for the purpose of manufacturing Portland cement and other clay products, mining coal and of owning securities of other companies engaged in similar lines of business.

Ohio Cement Company has bought and has in its treasury \$307,000 of the stock (68 per cent of a total issue of \$450,000) and \$110,500 of the 6 per cent bonds (out of a total issue of \$204,000) of The Ohio Portland Cement Company.

Ohio Cement Company has bought, and when final payment of \$16,100 is made, will own, through another subsidiary company, to be organized for that purpose, 440 acres of coal, limestone and shale land in one tract in Vinton County, Ohio, adjoining the property of The Ohio Portland Cement Company.

The \$110,500 of bonds and \$307,000 of stock of The Ohio Portland Cement Company owned by Ohio Cement Company, as above stated, together with the land just purchased, including the \$16,100 yet to be paid on this land, will have cost only \$108,600 of preferred stock and \$211,000 of common stock of Ohio Cement Company, and have gone into the Company at exact cost.

Ohio Cement Company has no debts except current accounts.

A Word to Investors

OHIO CEMENT COMPANY controls enormous deposits of coal, limestone and shale, all on the same land, which are worth *many millions* of dollars for cement, brick, pottery and other purposes. The control of this great property with all the improvements has been secured at a most reasonable price and *has gone into the Company at exact cost.*

Through its ownership of control of The Ohio Portland Cement Company, which is operating its coal mines profitably, Ohio Cement Company is already a going company, now making money.

Ohio Cement Company will do all its own constructing and operating, through its own subsidiary companies. No insiders will form constructing, selling or operating companies to profit at the expense of stockholders.

An investment in Ohio Cement Company is not temporary, speculative or risky. It is permanent and as solid as concrete itself. Each share of stock represents specific and definite ownership in enormously valuable mineral deposits in the heart of industrial America. It is an investment for the present and for generations to come. It will take centuries to work out the deposits of raw materials controlled by the Company.

The management of Ohio Cement Company is in the hands of able, experienced and successful business men.

Investments in cement companies are known to be among the safest and most profitable possible to make. Some cement companies are naturally better than others. Nature has done practically everything for Ohio Cement Company except actually to make the cement.

Ohio Cement Company has not issued and will not issue any bonds. The financing of the Company has been done and will be done solely by the issue of stock. The policy of the Company is to keep out of debt and to develop its great property for the sole benefit of its stockholders.

Ohio Cement Company through its subsidiary companies, is mining and marketing its coal, and is planning the construction on its lands of works for manufacturing Portland cement and various kinds of brick, pottery, etc. Work has been begun and a considerable amount already accomplished along these lines.

To carry out its plans, the stock of Ohio Cement Company is offered to investors on the basis of one share of preferred stock and one share of common stock for \$100.

A Word about Cement

PORTLAND CEMENT is made by burning at a temperature of about 3000° F. an intimate mixture of silica, alumina and lime. To obtain this combination, various natural materials may be used, and the resulting cement be of equally good quality. The materials must be mixed in proper proportions to give the exact chemical combination required.

It is obvious that in the commercial manufacture of Portland cement, it is essential that the materials used should be, as nearly as possible, of the correct proportions chemically and free from impurities, to facilitate correct mixing; that they should lie close to each other and in a way favorable for cheap and easy handling; that good fuel should be obtainable at a minimum cost; and, finally, that the commodity, on completion, should have good shipping facilities to a market as close and as extensive as possible.

The ability one plant possesses to manufacture Portland cement better or cheaper than another depends upon the relative excellence of these natural conditions and the skill of the management in taking advantage of them.

The necessity of utilizing natural conditions to the greatest extent is becoming more and more important.

As has been true in every industry, the early cement plants were uneconomical and their location was often governed by some necessity rather than conditions of special advantage. This is strikingly illustrated by the fact that the manufacturing cost of Portland cement in this country varies from about 40 cents per barrel to over \$1.00 per barrel. Some companies are compelled to ship all of their raw material and fuel into their plants by rail. A majority are compelled to go long distances for their fuel and one ingredient.

Property

OHIO CEMENT COMPANY controls about 850 acres of mineral land near Wellston, Ohio.

This property contains limestone and shale of the proper chemical formation and in quantity sufficient for manufacturing an almost unlimited amount of Portland cement, fire and vitrified brick and pottery. Both the limestone and shales lie at an elevation above the mill site, and can be quarried at a minimum of expense and handled into the mill by gravity. The importance of being able to handle these materials by gravity is better appreciated from the fact that in a plant of 3,000 barrels capacity, about 900 tons of limestone and shale are handled daily.

This same property also contains deposits of Jackson Hill coal, estimated to contain about 10,000,000 tons.

The coal mines are opened up, equipped, and are now in operation.

The value of these coal mines cannot be overestimated either from the view of security for the investor, ability to produce immediate earnings, or of furnishing fuel for the cement and brick plants at the lowest possible cost.

A standard gauge switch, connecting with the D. T. & I. Ry., extends over The Ohio Portland

Cement Company's own right of way direct to the Company's coal tipple, thus affording the Company connections at Wellston with the C. H. & D., the Hocking Valley and the B. & O. Railways.

Located as it is practically in the center of business of the United States, and in close touch with a dozen large cities, the Company has shipping facilities over four railroads.

The wonderful combination of natural conditions will enable the Company to make Portland cement of the finest quality at a cost, as estimated by our engineers, one-third cheaper than any other plant east of the Mississippi River.

Engineers' Reports

Office of Brush, Allen & Anderson,
Engineers,
Penobscot Building.
Detroit, Mich., June 3, 1907.

Mr. Wm. L. Holmes,
President Ohio Cement Company,
Detroit, Mich.

Dear Sir:—

We have examined the properties of The Ohio Portland Cement Co. at Wellston, Ohio, and submit the following report:

Property

The property of The Ohio Portland Cement Co. includes approximately four hundred acres of land, situated in Milton Township, Jackson County, and Clinton Township, Vinton County, in the State of Ohio. The property is located about four and one-half miles east of Wellston, Ohio. The property is cut by one large valley, and from this large valley there extend a number of small valleys and ravines. Through this valley runs a small creek which is dammed at a convenient point, and the water is used for feed water for the boilers and other purposes. On the sides of the valley are exposed three seams of Jackson Hill coal, No. 3 seam of coal being at the lowest point of the valley along the side of the creek. About 30 feet above the No. 3 seam of coal occurs the No. 4 seam of coal, this seam being about 5 feet thick. Above this seam of coal is a bed of limestone from 9 to 12 feet thick. 36 feet above the No. 4 seam of coal, there occurs a No. 5

seam, the No. 5 seam of coal being about 3 feet 6 inches thick. 36 feet above the No. 5 seam of coal, occurs the No. 6 seam of coal; this seam of coal, however, on this particular property only occurs near the top of the hills, and is therefore very limited in extent. Above the seam of limestone mentioned, occurs a seam of 21 feet of shale. The property itself is covered with timber, the majority of timber being scrub timber. There is, however, a proportion of the property on which the timber is sufficiently large so that it can be utilized for saw timber. The scrub timber is sufficiently heavy for timbering in the mine.

The Company has already installed a mining equipment of sufficient capacity to load 500 tons of coal per day. This equipment includes a coal tippie, electrical plant, cutting machines, mine cars, mules, mine tracks, and about one and one-half miles of standard gauge track, together with the right of way. This trackage runs from the mine to the D. T. & I. Ry.

Limestones

The limestone rock in this property occurs above the No. 4 seam of coal. It runs from nine to twelve feet in thickness. It is uniform in quality and is of a variety which is comparatively easy to crush and grind. This limestone outcrops on both sides of the valley, and large quantities of it can be removed by quarrying. The balance of the limestone can be removed by quarrying from the coal mine entries with the same track and equipment as has been used for the coal mining, after the coal has been removed. The limestone, as will be seen by the analysis given later, is suitable for the manufacturing of cement.

Shale

The shale occurs in a seam about 20 feet thick just above the limestone, the separation between the limestone and the shale being a layer of 8 inches of iron ore. On the sides of the hills this iron ore, where it can be easily reached, has been removed. This shale can be easily removed by a steam shovel, and sufficient quantity can be supplied for years in this way for the operation of the plant. The shale, as will be seen by an analysis given later, is of proper composition for the manufacture of cement.

Coal

As has been stated, there are on the Company's property four veins of coal, all of which are suitable for the producing of steam, and can also be used for the manufacture of cement. These coal seams can all be reached by drift mines from the side hill. These seams of coal are almost perfectly level, and in the operation of the mining of this coal, very little difficulty is experienced with water. The Company has on its property a supply of coal estimated at about 6,000,000 tons. In manufacturing cement, it will be possible to mine enough coal so that there will be sufficient slack coal available for the use of the cement plant, the lump coal being sold. It is customary in mining to pay the miners only for the lump coal; this being the case the Company will secure its fuel practically without cost.

Analysis

Our Mr. Allen visited the property, and samples were taken by him of the limestone, shale and coal. These samples were sent back, under his direction, to the University of Michigan, where they were tested by Prof. Alfred H.

White, Professor of Chemical Technology. The following is a copy of the report made by Prof. White:

I report herewith the analyses of samples of limestone, shale, and two coals submitted by you:

	Limestone.	Shale.
Silica (SiO_2)	.78	69.65
Oxides of Iron ($\text{FeO} + \text{Fe}_2\text{O}_3$)	.91	*—
Oxide of Alumina (Al_2O_3)	.63	19.55
Lime (CaO)	54.28	.74
Magnesia (MgO)	.80	3.44
Loss on Ignition	42.86	5.47
Sulphur (S)	.06	.02

*Very small and reported with Al_2O_3 .

Alkalies not determined.

	Coal No. 4.	Coal No. 5.
Moisture	3.96	4.62
Volatile Matter	44.41	39.94
Fixed Carbon	42.46	46.93
Ash	9.17	8.51
Sulphur	5.58	4.28

This report shows an analysis very similar to that which has previously been made by other chemists, both of limestone and shale. The coal analysis given in Prof. White's report shows much higher sulphur than has been shown by previous reports. This is due to the fact that the mines were not in operation when the samples were taken, and it was necessary to take samples from the face of the seam, through which more or less water containing sulphur had percolated. The normal amount of sulphur for the No. 4 seam, as shown by previous analysis, should be about 2.75 per cent, and for the No. 5 seam 3.05 per cent.

General Location

The location of the plant is exceptionally desirable for the manufacturing of cement.

One of the most favorable points is the fact that there occurs on this property the three principal ingredients used in the manufacture of cement, in sufficient quantities to supply a cement plant for a large number of years. This fact saves a very large item of expense in transportation.

In addition, it eliminates one of the most troublesome questions in factory management, that is, the question of car shortage in railway facilities, as we have all of the materials desired to make cement on our own property, and we are not dependent upon any common carrier for our raw material.

The plant is well located as regards railway facilities, having a switch already installed, which extends to the D. T. & I. Ry. The properties are only four and one-half miles from Wellston, which has four railroads running into it; this affords the very best possible transportation facilities.

The occurrence of the cement making materials being all above the valley, makes it possible to introduce the various materials in the factory by gravity, and to handle a great many of the operations in the factory by gravity, saving the cost of expensive elevating machinery, and its up-keep, and also saving the power required to operate it.

In examining the analysis of the ingredients to be used in the manufacture of cement, it is very noticeable that they are particularly low in iron oxide. This is very desirable from the fact that cement produced from materials low in iron oxide has a much better color. Where iron oxide is present, the cement has a bluish gray color which is objectionable in many building operations.

Cost to Manufacture

The following estimate has been made of the cost for manufacturing a barrel of cement in this plant :

Rock.....	\$.08
Shale.....	.01
Labor.....	.10
General supplies and packing.....	.05
Interest and depreciation.....	.10
	<hr/>
Cost per barrel.....	\$.34

You will note in this estimate that no allowance has been made for coal. It is reasonable presumption, as stated before, that this coal can be obtained for nothing. If, however, the entire cost of mining coal were charged to the cement plant, the expense would not exceed \$.06 per barrel, making the cost under these conditions \$.40 per barrel. The above estimate is based on a cement production between 2,500 and 3,000 barrels per day.

In General

The raw materials for making cement on this property are as nearly perfect as we have ever known them to be found, while their location in successive, perfectly horizontal strata above the mill site, and the free fuel make it possible to manufacture cement here at a lower cost than anywhere else in the country, of which we have knowledge.

Respectfully submitted,

BRUSH, ALLEN & ANDERSON.

Detroit, December 19, 1907.

Mr. Wm. L. Holmes,
President Ohio Cement Company.

Dear Sir:—

We beg herewith to report regarding the preliminary investigation made by our Mr. Brush and Mr. Allen on a tract of 440 acres of mineral land lying directly north of the property of The Ohio Portland Cement Company.

Our investigation consisted of a thorough examination of surface conditions, including outcroppings, elevation of land, extent and depth of valleys, etc., covering several days. The information thus gained, taken in connection with our knowledge of your present property and local conditions in general, leads to the following deductions:

The property examined undoubtedly contains the same veins of coal, limestone and shale as are found on The Ohio Portland Cement Company's land. Also on account of the increased elevation and the few and comparatively shallow valleys, it will contain these materials on a very large proportion of its area.

We would estimate the property examined to contain 50 per cent more coal, limestone and shale than the present Ohio Portland Cement Company's land.

Yours very truly,

BRUSH, ALLEN & ANDERSON.

Opportunity

To the person who has never yet thought of the opportunities for the development of large commercial enterprises of great earning power in Southern Ohio, the very business center of the United States, we offer this outline of the possibilities of Ohio Cement Company.

The mineral resources of Ohio are in no way spectacular, and no abnormal profits will ever be made from any haphazard effort at development. There is nothing in the mineral deposits to attract speculators by sensational values. Possibly, for this reason, there has been comparatively little development in Southern Ohio except for coal.

There are, however, to be found in this district, deposits of minerals, principally limestones, clays and coal, which, on account of their purity and desirability for manufacturing cement, brick, etc., are of untold commercial value. This fact has been recognized for many years, and has been the subject of many reports, including a special report by the State Geologist of Ohio.

We have not discovered anything, nor have we made any new inventions. What we have done is to find a property which offers almost ideal natural conditions, and to apply to the study of the conditions and

possibilities of that property the best possible technical ability.

The peculiar formation of the various strata of Southern Ohio is such that, to have a proper commercial arrangement, the operations of handling the three main products must be carried on simultaneously and each in its proper proportion. Such an arrangement contemplates the use of shales in brick manufacture and as a part of the raw product of cement; the use of limestone in making cement and possibly for burning to use in sand-brick manufacture; and the mining of coal, partly for sale to the market, and partly for cement and brick burning, and for power purposes.

Such a commercial arrangement, when properly carried out, will bring a large element of economy to each individual operation which would not exist were that operation carried on alone. The various manufacturing activities will be conducted with equipment common to one or more of the industries. One system of trackage, trolleys and electrical hauling locomotives will be common to all branches. Electric air drills for rock drilling will be operated from the same electrical supply mains. The large scale on which materials will be handled will justify steam shovels. The coal, which forms a large item in cement and brick manufacture, will be obtained from our own

mines, and our slack coal will be used in our own power plant at the same time that the lump coal is being sold at a profit.

These are but a few of the items of economy which any business man can appreciate. These economies alone represent a very attractive commercial profit.

With the various operations properly proportioned, it will be possible for us to utilize some materials at a great profit which could not be handled at all alone. A very good illustration of this is the iron ore, a small vein of which covers the greater portion of our property.

The development of Ohio Cement Company is in no way an experiment with unknown and uncertain materials and conditions, but is simply the application of the same business and engineering principles of economy which have been essential to the success of all great enterprises.



Estimated Earnings

For the purpose of estimating the earnings of Ohio Cement Company's projected cement works, the capacity is estimated at 1,000,000 barrels per year, and the average selling price of cement at only \$1.00 per barrel.

The capacity of the works is expected to be over 1,100,000 barrels per year, while the average selling price of cement, through a series of years, has been \$1.10 per barrel at the mills.

Output of cement works, 3,000 barrels per day.	
1,000,000 barrels per year.	
Selling price at works \$1.00 per barrel.	
Total income	\$1,000,000
Cost to make, 40 cents per barrel,	
Total cost	400,000
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	\$600,000
Deduct 7 % on \$1,500,000	
preferred stock,	\$105,000
Deduct 10 % on \$3,000,000	
common stock,	300,000
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Surplus,	\$195,000

Explanation

The average cost to manufacture cement in the Lehigh Valley, where 50 per cent of all the cement in the United States is made, is about 65 cents per barrel. The Lehigh Companies are obliged to bring the coal with which to burn their cement over the mountains from the soft coal districts. The freight on cement from the Lehigh plants to Ohio points makes the cement of these companies cost them \$1.00 and upwards per barrel, laid down in Ohio.

It will be seen that Ohio Cement Company should earn 60 cents per barrel, or \$600,000 per year, when cement is selling at only \$1.00 per barrel, which would be prohibitive for Ohio delivery from the Eastern cement plants or for any cement works outside of Ohio.

The nature of the cement industry renders it improbable that any combination or non-competitive arrangement can be carried through to such a point as to result in a monopoly of the industry and permanently high prices. Good raw materials are so widely distributed throughout the United States that there is hardly a county which could not produce Portland cement if prices were forced high enough. The only limitation now on the erection of cement plants is the fact that they cost too much for an individual or small firm to enter the business. A plant producing 2,000 barrels per day will require an investment, for land, plant and working capital, of between \$1,000,000 and \$1,500,000.—*U. S. Geological Survey, 1905.*

The reaction in business and the suspension of a great many industrial plants during November and December, 1907, and the early part of 1908, and the stoppage of nearly all new work, are bound to make money cheap during the next year, and it will be easy for railroads, manufacturers and mining companies of good standing to fund their floating indebtedness. After this has been accomplished it will bring about the greatest industrial movement this country has ever seen, and during the latter part of 1908, and in 1909 and 1910, our prosperity will exceed any we have ever enjoyed heretofore. To keep up with the natural increase in the consumption of the country, it will be necessary to build new railroads, new factories, develop new mines and increase the production of all the necessities of life.—*Cincinnati Enquirer, January 1, 1908.*



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